

# Understanding Cycles of Abuse: A Multimotive Approach

Lauren S. Simon  
Portland State University

Charlice Hurst, Ken Kelley, and Timothy A. Judge  
University of Notre Dame

Fundamental to the definition of abusive supervision is the notion that subordinates are often victims of a pattern of mistreatment (Tepper, 2000). However, little research has examined the processes through which such destructive relational patterns emerge. In this study, we draw from and extend the multimotive model of reactions to interpersonal threat (Smart Richman & Leary, 2009) to formulate and test hypotheses about how employees' emotional and behavioral responses may ameliorate or worsen supervisors' abuse. To test this model, we collected 6 waves of data from a sample of 244 employees. Results revealed reciprocal relationships between abusive supervision and both supervisor-directed counterproductive behavior and supervisor-directed avoidance. Whereas the abusive supervision—counterproductive behavior relationship was partially driven by anger, the abusive supervision—avoidance relationship was partially mediated by fear. These findings suggest that some may find themselves in abusive relationships, in part, because their own reactions to mistreatment can, perhaps unknowingly, reinforce abusive behavior.

*Keywords:* abusive supervision, discrete emotions, multimotive model, supervisor-directed behaviors, reciprocal relationships

*Supplemental materials:* <http://dx.doi.org/10.1037/apl0000031.supp>

It is virtually a truism that relationships evolve over time, and nearly as obvious that the parties to a relationship influence each other's behavior. Yet, these points seem to bear repeating, given that most research in organizational behavior treats interpersonal relationships as static and unidirectional. This is no less true in the literature on abusive supervision (i.e., ongoing, nonphysical mistreatment by a supervisor; Tepper, 2000) than on other interpersonal constructs. Despite some theorizing that paints workplace mistreatment as a cyclical process in which the victim may provoke the perpetrator and the perpetrator may be reacting to the negative behavior of the victim (Aquino & Lamertz, 2004), which certainly complicates the terminology of "perpetrator" and "victim," most research on abusive supervision has offered only snapshots of how abuse affects the employee. When factors that may provoke the supervisor's behavior are investigated, they typically consist of forces beyond the employee's purview, such as the supervisor's perceptions of the procedural justice of the organiza-

tion (Tepper, Duffy, Henle, & Lambert, 2006). In a rare exception to this pattern, a recent study found that, when assessed 6 months apart, abusive supervision and employee counterproductive behavior were reciprocally related; however, with a lag of 20 months, counterproductive behavior predicted abusive supervision, but the effect of abusive supervision on counterproductive behavior was nonsignificant (Lian, Ferris, Morrison, & Brown, 2014). These findings underscore the temporal and dynamic nature of relationships between supervisors and employees, suggesting that a comprehensive understanding of abusive supervision is not possible without research designs that attempt to capture that dynamism.

To that end, in this article, we build on the multimotive model of reactions to interpersonal threat (Smart Richman & Leary, 2009) to examine how employees' affective and behavioral responses to abusive supervision may ameliorate or worsen their supervisors' abuse. The multimotive model (Smart Richman & Leary, 2009) spells out specific affective, cognitive, and behavioral reactions to interpersonal threat that provide a framework for understanding the employee not only as a victim, but also, and perhaps unknowingly, as a perpetrator. Building on Baumeister and Leary's (1995) argument that human beings have a fundamental need to belong that is satisfied only by affectively positive, stable interaction patterns with other people, the multimotive model (Smart Richman & Leary, 2009) is premised on the assertion that feeling valued and accepted by others leads to a secure sense of *relational value*. Relational value is threatened by negative interpersonal experiences like ostracism, criticism, humiliation, and intimidation. Such experiences are associated with three main types of emotional and behavioral responses: (a) lowered empathy and pro-social behavior, (b) anger and aggression, and (c) fear and withdrawal.

---

This article was published Online First May 25, 2015.

Lauren S. Simon, School of Business Administration, Portland State University; Charlice Hurst, Ken Kelley, and Timothy A. Judge, Mendoza College of Business, University of Notre Dame.

We thank Action Editor Lillian Eby and the review team for their constructive guidance during the review process. We also thank Jason A. Colquitt, John Kammeyer-Mueller, James Algina, Talya N. Bauer, and Brian Bolton for their helpful feedback on previous versions of this article.

This article is based on Lauren S. Simon's dissertation, which was completed at the University of Florida.

Correspondence concerning this article should be addressed to Lauren S. Simon, School of Business Administration, Portland State University, 631 SW Harrison Street, Portland, OR 97201. E-mail: [lausimon@pdx.edu](mailto:lausimon@pdx.edu)

Framing abusive supervision as a threat to relational value, we investigate the relationships of abusive supervision with compassion and supervisor-directed citizenship behavior, anger and supervisor-directed counterproductive behavior, and fear and supervisor-directed avoidance. We also examine the associations of each of the supervisor-directed behaviors with subsequent abusive supervision. Figure 1 displays the hypothesized model.

The primary contribution of this article is its examination of victimization as a relational process in which the roles of aggressor and target are fluid (Aquino & Lamertz, 2004). The distinction between abusive supervision as a wrong perpetrated upon the employee rather than as acts occurring as part of a relationship is important. If abusive supervision arises out of an interpersonal process, then addressing abusive supervision may require intervening in the relationship, not simply attempting to change the behavior of one person or to dissolve the relationship.

This research also contributes to our understanding of the role of specific emotions, rather than moods, in impelling certain types of work behavior. There has generally been scant attention to specific emotions in organizational behavior research (Brief & Weiss, 2002). This gap may be particularly problematic in the context of research on interpersonal mistreatment. According to the multimotive model (Smart Richman & Leary, 2009), specific emotions are central to determining behavioral outcomes of threats to relational value. Indeed, prior research has found that different emotions of similar valence may be related to distinct action tendencies (Chow, Tiedens, & Govan, 2008; Horberg, Oveis, & Keltner, 2011).

A final contribution of our research is its temporal design, which supports our process-based perspective. The majority of studies examining abusive supervision have been cross-sectional (Herscovis & Reich, 2013; Martinko, Harvey, Brees, & Mackey, 2013; Tepper, 2007), providing insight into relations involving the aggregated quantity of behaviors that participants remember experiencing over a designated time period. Though such studies certainly have merit, they do not allow researchers to assess change in the quantity of abusive behaviors, nor do they enable examination of whether employees' reactions to acts of abuse prevent or elicit future mistreatment.

We expand on Lian et al.'s (2014) study, adopting a repeated-measures design (monthly measurements over the course of a 6-month period) to better understand how abuse affects a broader range of theoretically relevant follower behaviors that may beget or ward off further abuse. Rather than focusing on behaviors that are not specific to the target, we focus on behaviors that subordinates enact toward their supervisors. Research suggests that individuals' reactions to mistreatment depend to some degree on who enacts it (Gerber & Wheeler, 2009; Inness, LeBlanc, & Barling,

2008), and our research question is particularly focused on the interplay between supervisors' and subordinates' behaviors toward one another. More specifically, we aim to better understand how individuals who might experience more abuse by their supervisor than is typical for an average person during a measured time period react to that abuse during a subsequent time period and vice versa (reciprocal effects), a question that inherently involves examining a mixture of both within- and between-person variation over time (Dimotakis, Ilies, & Judge, 2013). By assessing abusive supervision and subordinates' behaviors monthly, we hope to more closely portray these relational interactions as they unfold over time, and relative to what might be considered "normative" or typical in the working population, given that the interpretation of whether or not a behavior at any given time point is abusive, and subsequent reactions, are likely to depend, to a large degree, on such norms.

## Theory and Hypotheses

### Abusive Supervision, Anger, and Supervisor-Directed Counterproductive Behavior

Counterproductive work behaviors are volitional acts that harm or are intended to harm organizations or individuals in organizations (Spector & Fox, 2005). In this study, we focus specifically on supervisor-directed counterproductive behavior because prior meta-analysis has demonstrated that abuse by supervisors is more associated with aggression toward supervisors than toward other targets (Herscovis & Barling, 2010).

Counterproductive behaviors have been studied as outcomes of abusive supervision mainly on the premise that subordinates retaliate against the injustice of abuse (Aquino, Tripp, & Bies, 2001; Mitchell & Ambrose, 2007; Tepper, Carr, Breaux, Geider, Hu, & Hua, 2009; Thau & Mitchell, 2010). But there is also evidence that counterproductive behavior arises from negative emotions (Judge, Scott, & Ilies, 2006; Yang & Diefendorff, 2009), including anger (Rodell & Judge, 2009). According to multimotive theory (Smart Richman & Leary, 2009), anger stemming from perceptions of unfairness provides the fuel for retaliatory behavior. Likewise, Folger and Skarlicki (2005) asserted that violations of norms for respect in the workplace engender deontic anger and the urge to restore justice via retaliation. Thus, anger stemming from experiencing higher levels of abusive supervision than what might be considered normative (relative to the sample or population average) during a given time period may lead to supervisor-directed counterproductive behavior.

*Hypothesis (H)-1a:* Increases in levels of abusive supervision relative to what is typical for the average person during a given month are positively associated with subordinates' subsequent levels of supervisor-directed counterproductive behavior.

*H-1b:* Increases in anger partially mediate the positive association between increases in levels of abusive supervision relative to what is typical for the average person during a given month and subordinates' subsequent levels of supervisor-directed counterproductive behavior.

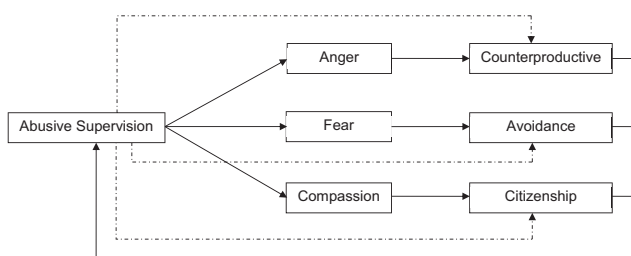


Figure 1. Conceptual model.

## Abusive Supervision, Fear, and Supervisor-Directed Avoidance

Multimotive theory (Smart Richman & Leary, 2009) suggests that avoidance is another likely response to abuse because individuals may wish to “stay out of harm’s way,” thereby evading further pain. It is not surprising that abusive supervision has been positively linked to avoidant coping strategies (Mawritz, Dust, & Resick, 2014; Tepper, Moss, Lockhart, & Carr, 2007). Tepper et al. (2007) found that abused subordinates use regulative maintenance strategies consisting of attempts to maintain the supervisor-subordinate relationship by distorting messages (e.g., avoiding asking for direction and stretching the truth to avoid problems). Moreover, in a review of the incivility literature, Porath and Pearson (2010) found that 63% of individuals surveyed lost time avoiding a perpetrator.

Fear may be the emotional basis for avoidance of supervisors who exhibit higher levels of abusive behavior during a given time period than what might be considered normative. Fear is an affective system responsible for “protecting individuals from environmental dangers, social aggressions, or abiotic aversive stimuli” (Mislin, 2003, p. 56). It is a response of the behavioral inhibition system, the neural system responsible for the inhibition of approach toward potentially dangerous stimuli (Gray, 1987). Thus, fear leads people to avoid situations that might be hurtful, such as encounters with abusive individuals.

*H-2a:* Increases in levels of abusive supervision relative to what is typical for the average person during a given month are positively associated with subordinates’ subsequent levels of supervisor-directed avoidance.

*H-2b:* Increases in fear partially mediate the positive association between increases in levels of abusive supervision relative to what is typical for the average person during a given month and subordinates’ subsequent levels of supervisor-directed avoidance.

## Abusive Supervision, Compassion, and Supervisor-Directed Citizenship Behavior

Organizational citizenship behaviors are discretionary behaviors that are beneficial to the organization and that are not explicitly recognized by the formal reward system (Smith, Organ, & Near, 1983). Several studies have found abusive supervision to be negatively related to various forms of citizenship behavior by employees (Aryee, Chen, & Debrah, 2008; Aryee, Chen, Sun, & Debrah, 2007; Zellars, Tepper, & Duffy, 2002). The multimotive model (Smart Richman & Leary, 2009) predicts that this reduction in citizenship resulting from abusive supervision will be specific to behavior toward the supervisor. This may be due, in part, to reduction in the ability to empathize with the perpetrator (Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007).

*Empathy* is an aspect of compassion, defined as “the feeling that arises in witnessing another’s suffering and that motivates a subsequent desire to help” (Goetz, Keltner, & Simon-Thomas, 2010, p. 351). Supervisors who exhibit higher levels of abusive behavior than what might be considered normative may be doing so in reaction to injustices they have suffered at the hands of the organization (Hoobler & Brass, 2006; Tepper et al., 2006), which

could, perhaps, make them sympathetic figures. But prior research suggests that, because they are unkind, abusive supervisors may appear responsible for their suffering (Bradfield & Aquino, 1999) and are, therefore, less likely to evoke sympathy (Rudolph, Roesch, Greitemeyer, & Weiner, 2004). Thus, even if abusive supervisors are under duress, they are likely to be blamed for their own travails.

*H-3a:* Increases in levels of abusive supervision relative to what is typical for the average person during a given month are negatively associated with change in subordinates’ subsequent levels of supervisor-directed citizenship behavior.

*H-3b:* Decreases in compassion partially mediate the negative association between increases in levels of abusive supervision relative to what is typical for the average person during a given month and subsequent levels of change in supervisor-directed citizenship behavior.

## Effects of Supervisor-Directed Behaviors on Abuse

There are rarely “pure victims” in abusive relationships (Amir, 1967; Aquino & Lamertz, 2004; Wolfgang, 1967). Rather, in many cases, members of the dyad trade the roles of victim and perpetrator, both acting and being acted upon. And so, in carrying out supervisor-directed counterproductive behaviors, avoiding the supervisor, or withholding supervisor-directed citizenship behaviors, subordinates who perceive that they have experienced abuse might perpetuate the cycle of negative interaction.

**Supervisor-directed counterproductive behavior and abusive supervision.** The multimotive model (Smart Richman & Leary, 2009) is as applicable to supervisors as it is to subordinates. When an employee exhibits higher amounts of supervisor-directed counterproductive behavior than is typical of the average employee during a given time period, it may certainly undermine supervisors’ sense of relational value. Organizational norms generally dictate that subordinates treat supervisors with courtesy and respect (Sy, 2010), but supervisor-directed counterproductive behavior violates these norms and undermines supervisors’ status. Consistent with the predictions of the multimotive model, (Smart Richman & Leary, 2009), violation of social conventions gives rise to anger, blame (Ohbuchi et al., 2004), and aggression (Lee & Tedeschi, 1996). In particular, people become aggressive when their capacity to exercise power is threatened (Fast & Chen, 2009). Also, because supervisors need to accomplish many of their goals through their subordinates’ efforts, behaviors that challenge the status on which they rely for their authority might threaten their goal progress. This frustration of their goals would likely anger them (Carver & Harmon-Jones, 2009), giving rise to expressions of retaliatory aggression (Aquino et al., 2001; Bradfield & Aquino, 1999).

*H-4:* Increases in levels of supervisor-directed counterproductive behavior relative to what is typical for the average subordinate during a given month are positively associated with subordinates’ subsequent receipt of abusive supervision.

**Supervisor-directed avoidance and abusive supervision.** People’s sense of relational value is threatened not only by active aggression but also—especially—by rejection (Smart Richman &

Leary, 2009). Avoiding someone is essentially rejecting interaction with them. Being rejected by an employee may be especially threatening to a supervisor because rejection signals a loss of control (Gerber & Wheeler, 2009); thus, as with supervisor-directed counterproductive behavior, increased displays of supervisor-directed avoidance relative to what is typical across employees during a given time period threaten the supervisor's status and may signal that the employee is not working toward the supervisor's goals. In addition, avoidance communicates that the subordinate is unlikely to retaliate, reinforcing an image of vulnerability. Rejected individuals may use antisocial behavior to regain a sense of control (Gerber & Wheeler, 2009) and, as Aquino and Lamertz (2004) suggested, people may be more likely to victimize underperforming individuals over whom they believe they have power.

*H-5:* Increases in levels of supervisor-directed avoidance relative to what is typical for the average subordinate during a given month are positively associated with subordinates' subsequent receipt of abusive supervision.

**Supervisor-directed citizenship behavior and abusive supervision.** Unlike supervisor-directed counterproductive behavior and avoidance, displays of supervisor-directed citizenship behavior that exceed what is typical for an average employee during a given time period may serve the intended purpose of restoring the employee's sense of relational value by improving the supervisor's treatment of the employee. Aquino and Bommer (2003) found that people who engaged in higher levels of citizenship behavior were less likely to perceive themselves as having been victims of mistreatment at work. The authors argued that social attractiveness was partially responsible for this link. Likewise, Bolino (1999) asserted that good citizens' cooperativeness and appropriate levels of social sensitivity make them socially attractive. Social attractiveness, meanwhile, is negatively related to mistreatment (Furr & Funder, 1998). Furthermore, due to the norm of positive reciprocity (Gouldner, 1960), supervisors should feel obligated to return subordinates' goodwill (Aquino & Bommer, 2003).

*H-6:* Increases in levels of supervisor-directed citizenship behavior relative to what is typical for the average subordinate during a given month are negatively associated with subordinates' subsequent receipt of abusive supervision.

## Method

### Sample and Procedure

To recruit participants, we placed announcements on several popular classified advertising websites (e.g., Craigslist, Facebook's targeted advertisement system). The announcements instructed individuals who were interested in participating in a university study about "social interaction in the workplace," to e-mail the first author so that they could be sent a link to a brief online registration form. To qualify for the study, participants were required to be U.S. citizens, work full-time, and have an immediate supervisor.

To capture the dynamic nature of the relationships proposed in this study, participants were asked to complete a series of seven

surveys over the course of a 5-month period (six waves). All surveys were conducted online via email survey links. The first survey contained measures of potential time-invariant control variables and personality traits and was available to complete for a 1-week period.<sup>1</sup> On the Tuesday morning following the initial survey, participants began receiving a monthly survey containing measures of abusive supervision, emotions, and behaviors. Subsequent monthly surveys were available to participants from the first Tuesday morning through the first Thursday evening of each month. A \$90 honorarium was awarded to individuals who completed the entire study.

An initial sample of 264 full-time employees registered for and started the study. Participants represented a variety of industries including education, medicine, social work, finance, accounting, insurance, information technology, travel, engineering, law, transportation, and communications. Of the 264 individuals who completed the initial survey, 252 completed at least one monthly survey, and 244 completed at least two monthly surveys. In sum, usable data were available for 244 participants, and the number of data points yielded from the monthly surveys was 964 for lagged analyses.

Participants worked at their current organization for an average of 5.97 years ( $SD = 6.28$ ) and with their current supervisor for an average of 2.95 years ( $SD = 2.70$ ). The sample was predominantly female (79%) and White (74%), and the average age of participants was 37.04 ( $SD = 11.05$ ). Most participants (81%) had obtained at least a bachelor's degree.

### Measures

**Abusive supervision.** Abusive supervision was measured using Tepper's (2000) 15-item scale. Respondents were asked to rate the frequency with which their immediate supervisor, "Ridiculed me," "Told me my thoughts and feelings were stupid," "Put me down in front of others," and so forth, "during the past month." Items used a response scale ranging from 1 (*never*) to 5 (*very often*). Cronbach's alpha for this scale was .94.

**Emotions.** Because emotions tend to be target-specific (cf., Weiss & Cropanzano, 1996), participants were asked to rate how they had felt "during the past month" when interacting with or thinking about their immediate supervisor. Responses were given on a 1 (*very slightly to not at all*) to 5 (*very much*) scale. Anger was assessed with a combination of three items from Rodell and Judge (2009) and Crossley (2009): "Angry," "Hostile," and "Enraged." Six items from the PANAS-X (Watson & Clark, 1994) were used to assess fear: "Afraid," "Scared," "Frightened," "Nervous," "Jittery," and "Shaky." To measure compassion, we used six items identified by Goetz et al. (2010) as representing the subjective experience of compassion. These items include, "Compassionate," "Sympathetic," "Moved," "Tender," "Warm," and "Softhearted." Cronbach's alphas for each of these measures were as follows: Anger,  $\alpha = .90$ ; Fear,  $\alpha = .92$ ; Compassion,  $\alpha = .96$ .

**Supervisor-directed counterproductive behavior, avoidance, and citizenship behavior.** Participants' supervisor-directed behaviors were assessed using a frequency scale ranging from 1 (*never*) to 5 (*very often*). For each of the items, participants were

<sup>1</sup> The data presented in this article are part of a broader data collection effort that has not yet been published.



asked to indicate how often they engaged in the behavior during the past month.

Supervisor-directed counterproductive behavior was measured using seven items from Mitchell and Ambrose (2007). Sample items included, “Made fun of my supervisor,” “Acted rudely toward my supervisor,” and “Said something hurtful to my supervisor.” Cronbach’s alpha for this scale was .86.

Supervisor-directed avoidance was measured using seven items. Three items were adapted from Wade (1989) to reference the supervisor as the target of avoidance. Sample items included, “Avoided my supervisor,” and “Kept as much distance as possible between my supervisor and me.” An additional four items were adapted from Moss, Valenzi, and Taggart (2003). Their scale was originally designed to measure actions taken to avoid receiving feedback from one’s supervisor, though, these items were easily modified to measure more general supervisor-directed avoidance behaviors. Sample items included, “Went the other way when I saw my supervisor coming,” and “Tried to avoid eye contact with my supervisor so that (s)he didn’t start a conversation with me.” Cronbach’s alpha for this scale was .90.

Supervisor-directed citizenship behavior was measured using five items from Malatesta (1995). Sample items included, “Accepted added responsibility to help my supervisor,” “Helped my supervisor when he or she had a heavy workload,” and “Assisted my supervisor with his or her work when not asked.” Cronbach’s alpha for this scale was .89.

**Control variables.** Potential demographic control variables, such as age, gender, race, subordinate-supervisor tenure, and organizational tenure were not significantly related to the independent variables and dependent variables. Therefore, these variables were omitted from the final set of analyses. We also assessed the impact of other potentially relevant variables that could influence the relationships examined within this study. First, we obtained measures of the percentage of time participants were exposed to their supervisors each month as well as the number of hours they worked each month, because these variables could influence opportunities provided for both abusive supervision and supervisor-directed behaviors. Second, we created a “time” (linear trend) variable to account for the nonindependence that can arise from survey ordering. As noted by West and Hepworth (1991), ignoring linear trends can result in spurious relationships between predictors and criterion if these variables exhibit similar temporal patterns over time. However, the directionality and pattern of significance of our findings were not influenced by the inclusion of these variables, and thus, they, too, were omitted from the final set of analyses.

## Analytical Procedure

Because our data were nested within individuals over time, we used multilevel modeling to test our hypotheses. Models were estimated using Mplus version 7.11 (Muthén & Muthén, 2012). The time varying variables are considered Level 1 variables, because they are nested within each participant (Level 2). To ensure the appropriateness of multilevel modeling, we first estimated means-only models containing only intercepts and no predictors—in order to examine the extent to which variance in each of the Level 1 variables was partitioned within and between individuals. Results of these analyses revealed that a substantial

portion of each of the Level 1 variables was within-individual, and thus, that hierarchical linear modeling was appropriate. More specifically, 25% of the variance in abusive supervision, 30% of the variance in state compassion, 37% of the variance in anger, 42% of the variance in fear, 27% of the variance in supervisor-directed citizenship, 30% of the variance in supervisor-directed counterproductive behavior, and 24% of the variance in supervisor-directed avoidance was within-individual.<sup>2</sup>

To allow for the testing of complex models in which abusive supervision and each of the emotion and behavior variables were modeled simultaneously, we used a Bayesian estimator, rather than a maximum likelihood (ML) estimator. While each estimation technique has its strengths and weakness, advantages of the Bayesian approach include the ability to estimate more complex models (Zyphur & Oswald, 2015) and the ability to handle non-normally distributed data because normal distributions are neither assumed nor required (Muthén, 2010). This feature allows for a conceptually simple approach to multilevel mediation, as distributions of mediated effects are very often non-normal (Yuan & MacKinnon, 2009). Finally, the results garnered from Bayesian estimation allow for more straightforward and exact inferences (Zyphur & Oswald, 2015). However, despite these advantages, scholars have argued that Bayesian estimation has been underutilized in the organizational sciences—perhaps due to prior unavailability of guidelines and “user friendly” tools to implement Bayesian analysis—and advocate for its increased usage in appropriate cases (Kruschke, Aguinis, & Joo, 2012). In our situation, Bayesian analysis was appropriate, as residuals in our multilevel model were non-normally distributed, in which case standard errors are not accurately estimated in ML and Bayesian results may be considered more trustworthy (Muthén, 2010). Additionally, we tested for mediation, which results in non-normally distributed indirect effects that can also be properly accounted for in Bayesian analysis (Yuan & MacKinnon, 2009). More technical details regarding model specification and convergence are provided in Online Supplements A and B.

## Results

### Model

To simultaneously test the direct, reciprocal effects of abusive supervision and subordinates’ supervisor-directed citizenship behavior, counterproductive behavior, and avoidance, as well as the

<sup>2</sup> As with many studies in the abusive supervision literature (e.g., Byrne et al., 2014; Tepper, 2000; Tepper, Duffy, & Shaw, 2001; Tepper, Moss, & Duffy, 2011), the mean and standard deviation of abusive supervision in our study was quite low ( $M = 1.35$ ,  $SD = .59$ ). It is worth noting however, that even low, nonzero levels of abusive supervision are likely to be psychologically impactful; research has consistently shown negatively valenced events to have greater bearing than positively valenced events on individuals’ well-being (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Also worth mentioning is that despite the skewed mean of abusive supervision in our sample, the full range of the abusive supervision scale was used by participants. Furthermore, abusive supervision substantially varied from month to month, a finding which provides evidence that the data are suitable for capturing change in abusive supervision. Nonetheless, the overall variance was small, and in interpreting the findings, it is important to recognize that small variances can attenuate effect sizes (Cohen, Cohen, West, & Aiken, 2003).

mediating role of subordinates' emotions on the abusive supervision–subordinate behavior relationships, we estimated a random coefficients, multilevel structural equation model. Although all of the relationships were simultaneously assessed within a single model, for the sake of clarity, we first elaborate on how the behavioral variables (abusive supervision, citizenship, counterproductive behavior, and avoidance) were specified, followed by the emotion-based mediators. All relationships were modeled at Level 1.

Regarding the reciprocal effects of abusive supervision and subordinates' behaviors, we modeled supervisor-directed citizenship behavior, counterproductive behavior, and avoidance to predict abusive supervision at Level 1 and vice versa. Data were lagged such that Level 1 independent behavioral variables were measured one month prior to the behavioral dependent variables. For example, abusive supervision at time  $t$  was modeled to predict supervisor-directed citizenship at time  $t + 1$ . Likewise, supervisor-directed citizenship at time  $t$  was modeled to predict abusive supervision at time  $t + 1$ , and so on. Prior month's levels of the dependent variables were also entered as Level 1 predictors so that results would capture change in the dependent variables from one time period to the next. More specifically, abusive supervision at time  $t$  was modeled to predict abusive supervision at time  $t + 1$ . For supervisor-directed behaviors, each of the three behaviors at time  $t$  was modeled to predict each behavior at time  $t + 1$ . For example, supervisor-directed citizenship behavior, counterproductive behavior, and avoidance at time  $t$  were each modeled to predict supervisor-directed citizenship behavior at time  $t + 1$ .

Emotions measured at time  $t + 1$  were specified as mediators of the relationships between abusive supervision at time  $t$  and subordinates' behaviors at time  $t + 1$ . In particular, abusive supervision at time  $t$  was modeled to predict supervisor-directed compassion, anger, and fear at time  $t + 1$ , and each emotion assessed at time  $t + 1$  was modeled to predict each subordinate behavioral outcome at time  $t + 1$ . Compassion, anger, and fear at time  $t + 1$ , for example, were each modeled to predict supervisor-directed citizenship behavior at time  $t + 1$ . As with the behavioral variables, each of the three emotions at time  $t$  was modeled to predict each emotion at time  $t + 1$ , so that relationships would more accurately capture change in the mediating variables from one time point to the next. Compassion, anger, and fear at time  $t$ , for instance, were modeled to predict compassion at time  $t + 1$ .

Because we were interested in predicting change in absolute levels of abusive supervision and subordinates' behaviors from month to month, rather than deviations from one's own typical levels of these variables, we centered all of the independent variables, each of which was assessed at Level 1, around their grand means. Grand mean centering at Level 1 is appropriate in our case, because the research question and arguments in support of our hypotheses are focused on how people who experience more abuse than others (than the average person) at a given time point are likely to react to that abuse, and vice versa (i.e., reciprocal relationships). Grand mean centering appropriately captures such an interpretation (Dimotakis et al., 2013), and our results should be considered with this interpretation in mind.

## Tests of Hypotheses

Means, standard deviations and correlations among the study variables are reported in Table 1. Results from the hypothesized model are shown in Table 2, Table 3, and Table 4. Note that  $p$  values in Bayesian analyses are typically provided and reported as one-tailed, as is the case with Mplus output. Given this, and because our hypotheses were directional in nature, we use a one-tailed value of  $p < .05$  as a measure of statistical significance. The  $p$  value for a positive estimate can be interpreted as the proportion of the posterior distribution of effects in the population that is below zero. Conversely, the  $p$  value for a negative estimate indicates the proportion of the posterior distribution of effects in the population that is above zero (Muthén, 2010). As shown in Table 2, abusive supervision positively and significantly predicted supervisor-directed counterproductive behavior<sup>3</sup> ( $B = .11, p < .01$ ), and supervisor-directed avoidance ( $B = .20, p < .01$ ). Thus, H-1a and H-2a, which proposed positive relationships between abusive supervision and supervisor-directed counterproductive behavior and avoidance, respectively, were supported. Abusive supervision also significantly predicted supervisor-directed citizenship behavior ( $B = .13, p < .05$ ), albeit in a direction opposite to that which was hypothesized, thereby failing to support H-3a. The effects of emotion on supervisor-directed behavior are also displayed in Table 2. As shown in the table, compassion positively predicted supervisor-directed citizenship behavior ( $B = .17, p < .01$ ), anger positively predicted supervisor-directed counterproductive behavior ( $B = .07, p < .01$ ), and fear positively predicted supervisor-directed avoidance ( $B = .13, p < .01$ ). Additionally, compassion negatively predicted avoidance ( $B = -.04, p < .01$ ) and anger positively predicted avoidance ( $B = .06, p < .01$ ).

Table 3 contains results for the effects of abusive supervision on supervisor-directed emotions. Abuse was not significantly related to compassion ( $B = -.09, ns$ ), but was positively and significantly related to anger ( $B = .46, p < .01$ ) and fear ( $B = .19, p < .01$ ). To estimate the size of the indirect effects of abusive supervision on supervisor-directed behaviors via emotions, we took the product of the regression coefficients  $a_j$  and  $b_j$ , where  $a_j$  denotes the effect of the independent variable on the mediator, and  $b_j$  represents the regression coefficient between the mediator and the dependent variable, for each of the hypothesized mediated relationships. The covariance between  $a_j$  and  $b_j$  for each of the hypothesized mediated effects was not significant, and thus was not added to the product of the indirect effect to calculate the effect size. According to recent recommendations for multilevel random effects models (Tofighi, West, & Mackinnon, 2013), "If a significant covariance between  $a_j$  and  $b_j$  is not found, the full orthogonality of residuals assumption is plausible and the basic multilevel

<sup>3</sup> We also examined whether results held for different facets of supervisor-directed counterproductive behavior—particularly direct and indirect forms—to assess whether individuals might be prone to engage in more discrete forms of counterproductive behavior in response to abusive supervision. To do so, we ran the analyses once with the direct items (e.g., "Said something hurtful to my supervisor"), and once with indirect items (e.g., "Gossiped about my supervisor"). Results for each form were consistent with findings obtained using the full measure, with the exception that the effect of abusive supervision on the indirect measure of counterproductive behavior appeared to occur solely through its effect on anger, as the direct effect was nonsignificant.

Table 1  
Means, Standard Deviations, and Correlations Among Study Variables

Variable	M	SD	1	2	3	4	5	6	7
1. Abusive supervision	1.35	.59	<b>.94</b>						
2. Compassion	2.14	1.13	-.19**	<b>.96</b>					
3. Anger	1.62	.97	.79**	-.17**	<b>.90</b>				
4. Fear	1.30	.60	.65**	-.03	.59**	<b>.92</b>			
5. Citizenship	3.28	1.02	-.05	.54**	-.05	.09	<b>.89</b>		
6. Counterproductive behavior	1.30	.53	.67**	-.05	.61**	.60**	-.09	<b>.86</b>	
7. Avoidance	1.41	.67	.73**	-.26**	.66**	.59**	-.29**	.72**	<b>.90</b>

Note. *N* = 244–252. Coefficient alpha estimates are listed on the diagonal in bold. Correlations were calculated using aggregated Level 1 scores and, therefore, do not reflect multilevel relationships.

\*\* *p* < .01, two-tailed.

mediation model should be retained given its simpler interpretation” (p. 301), where the basic mediation model refers to one in which the product of *a<sub>j</sub>* and *b<sub>j</sub>* is used to calculate the indirect effect. We then tested the statistical significance of the indirect effect using the model constraint feature in Mplus. When used to test indirect effects in conjunction with Bayesian analysis, this procedure constructs a posterior distribution around each indirect effect, from which inferences can be made (Muthén, 2010). The indirect effect of abusive supervision on supervisor-directed counterproductive behavior via anger was statistically significant (effect size = .03, *p* < .01), as was the indirect of abusive supervision on avoidance via fear (effect size = .03, *p* < .01). Thus, H-1b, which suggested that anger partially mediated the relationship between abusive supervision and supervisor-directed counterproductive behavior, and H-2b, which suggested that fear partially mediated the relationship between abusive supervision and supervisor-directed avoidance, were supported. However, H-3b, which argued for an indirect effect of abusive supervision on supervisor-directed citizenship through compassion was not supported (effect size = -.02, *ns*). Interestingly, although not hypothesized, anger also partially mediated the abusive supervision–avoidance relationship (effect size = .03, *p* < .01).

Results for the effects of supervisor-directed behaviors on abusive supervision are displayed in Table 4. Consistent with H-4 and

H-5, supervisor-directed counterproductive behavior (*B* = .12, *p* < .05) and avoidance (*B* = .09, *p* < .05) both positively predicted abusive supervision. When considered with the fact that positive direct and indirect effects were also found from abusive supervision to supervisor-directed counterproductive behavior and avoidance, these findings suggest reciprocal relationships between abusive supervision and both supervisor-directed counterproductive behavior and avoidance. However, supervisor-directed citizenship behavior did not significantly predict abusive supervision (*B* = .00, *ns*), failing to support H-6.

Pseudo *R*<sup>2</sup> statistics indicate that the full model explained 49% of the Level 1 variance in compassion, 47% of the Level 1 variance in anger, 36% of the Level 1 variance in fear, 62% of the Level 1 variance in abuse, 59% of the Level 1 variance in citizenship behavior, 56% of the Level 1 variance in supervisor-directed counterproductive behavior, and 63% of the Level 1 variance in avoidance. Moreover, although much of this variance can be explained by the lagged effects, comparing the full model to one in which auto-regressive effects and effects of any nonhypothesized behaviors and emotions at time *t* on those on time *t* + 1 are estimated (e.g., the effects of supervisor-directed citizenship, counterproductive behavior, and avoidance, at time *t* on avoidance at time *t* + 1) reveals that the hypothesized effects explained additional Level 1 variance in the mediators and outcomes. More

Table 2  
Lagged Effects of Abusive Supervision and Emotions on Supervisor-Directed Citizenship, Counterproductive Behavior, and Avoidance

Independent variable	Subordinate behavior											
	Citizenship ( <i>t</i> – 1)				Counterproductive behavior ( <i>t</i> – 1)				Avoidance ( <i>t</i> – 1)			
	Estimate	SD	<i>p</i>	95% CI	Estimate	SD	<i>p</i>	95% CI	Estimate	SD	<i>p</i>	95% CI
Citizenship ( <i>t</i> )	.56**	.05	.00	[.46, .65]	-.02*	.02	.05	[-.05, .01]	-.04**	.02	.01	[-.07, -.01]
Counterproductive behavior ( <i>t</i> )	-.07	.07	.16	[-.21, .07]	.24**	.07	.00	[.11, .36]	.12**	.05	.00	[.03, .21]
Avoidance ( <i>t</i> )	-.10	.06	.06	[-.22, .02]	.12**	.03	.00	[.05, .18]	.32**	.05	.00	[.22, .43]
Compassion ( <i>t</i> + 1)	.17**	.03	.00	[.12, .23]	.02	.01	.06	[-.01, .04]	-.04**	.01	.00	[-.07, -.01]
Anger ( <i>t</i> + 1)	-.02	.04	.32	[-.09, .05]	.07**	.02	.00	[.03, .10]	.06**	.02	.00	[.02, .11]
Fear ( <i>t</i> + 1)	-.05	.05	.14	[-.15, .05]	.03	.03	.16	[-.03, .09]	.13**	.04	.00	[.05, .22]
Abusive supervision ( <i>t</i> )	.13*	.07	.03	[-.01, .26]	.11**	.04	.00	[.03, .20]	.20**	.06	.00	[.10, .31]
<i>R</i> <sup>2</sup>	.59				.56				.63			
Δ <i>R</i> <sup>2</sup>	.02				.09				.07			

Note. Estimate = unstandardized regression coefficient; SD = standard deviation of the posterior distribution; CI = credibility interval. *R*<sup>2</sup> represents total Level 1 variance explained. Δ*R*<sup>2</sup> represents incremental Level 1 variance explained, when comparing the full model to one in which auto-regressive effects and effects of any non-hypothesized behaviors and emotions at time *t* on those on time *t* + 1 are estimated.

\* *p* < .05. \*\* *p* < .01, one-tailed.

Table 3  
Lagged Effects of Abusive Supervision on Supervisor-Directed Compassion, Anger, and Fear

Independent variable	Subordinate emotion											
	Compassion ( $t + 1$ )				Anger ( $t + 1$ )				Fear ( $t + 1$ )			
	Estimate	<i>SD</i>	<i>p</i>	95% CI	Estimate	<i>SD</i>	<i>p</i>	95% CI	Estimate	<i>SD</i>	<i>p</i>	95% CI
Compassion ( $t$ )	.46**	.06	.00	[.34, .58]	-.01	.02	.29	[-.05, .03]	.00	.01	.49	[-.03, .03]
Anger ( $t$ )	-.05	.04	.12	[-.12, .03]	.35**	.04	.00	[.27, .43]	.05**	.02	.01	[.01, .10]
Fear ( $t$ )	-.02	.06	.40	[-.14, .10]	.09*	.06	.05	[-.02, .20]	.33**	.05	.00	[.24, .42]
Abusive supervision ( $t$ )	-.09	.07	.10	[-.23, .05]	.46**	.06	.00	[.33, .58]	.19**	.05	.00	[.10, .29]
$R^2$	.49				.47				.36			
$\Delta R^2$	.19				.07				.07			

Note. Estimate = unstandardized regression coefficient; *SD* = standard deviation of the posterior distribution; CI = credibility interval.  $R^2$  represents total Level 1 variance explained.  $\Delta R^2$  represents incremental Level 1 variance explained, when comparing the full model to one in which auto-regressive effects and effects of any non-hypothesized behaviors and emotions at time  $t$  on those on time  $t + 1$  are estimated.

\*  $p < .05$ . \*\*  $p < .01$ , one-tailed.

specifically, relative to the simpler model, the hypothesized model explained an additional 19% of the Level 1 variance in compassion, 7% of the Level 1 variance in anger, 7% of the Level 1 variance in fear, 7% of the Level 1 variance in abuse, 2% of the Level 1 variance in citizenship behavior, 9% of the Level 1 variance in counterproductive behavior, and 7% of the Level 1 variance in avoidance. Along with the aforementioned analyses, we also performed a number of additional analyses involving testing for the relative magnitude of effect sizes and modeling emotions at different time points (e.g., time  $t$  vs. time  $t + 1$ ), available in Online Supplement C.

## Discussion

Although abusive supervision has been an important and prominent area of research during the past 15 years, research on the dynamic nature of the relationship—how the relationship between supervisor and subordinate unfolds over time—is somewhat underdeveloped (Herschovis & Reich, 2013; Martinko et al., 2013). Our research brought to light a number of dynamic processes potentially involved in the development of abusive supervisor-

subordinate relationships. We found that the relationships between abusive supervision and two types of employee behaviors—supervisor-directed counterproductive behavior and avoidance—were reciprocal in nature. Results also revealed that emotions played a substantial role in mediating the effects of abusive supervision on subordinates' behaviors. Anger partially mediated the abusive supervision-supervisor-directed counterproductive behavior relationship, whereas fear partially mediated the abusive supervision-supervisor-directed avoidance relationship. Additionally, although not hypothesized, anger also partially mediated the abusive supervision-avoidance relationship. This finding is consistent with recent research suggesting that avoidant responses can also be manifestations of aggression in some cases, depending on one's goals (Bossuyt, Moors, & De Houwer, 2014).

Contrary to our predictions, changes in abusive supervision positively predicted changes in supervisor-directed citizenship behavior, whereas changes in supervisor-directed citizenship behavior did not predict changes in abusive supervision. Although some individuals may withhold citizenship in response to abuse, many individuals may engage in such behavior in an effort to mitigate abuse. Indeed, though some research has found a negative association between abusive supervision and citizenship behavior (Zellers et al., 2002), one study has shown abusive supervision to be positively linked to compulsory organizational citizenship behavior—"citizenship behavior" that feels forced, or enacted against one's will, rather than voluntary (Zhao, Peng, Han, Sheard, & Hudson, 2013). Similarly, one explanation for the failure of supervisor-directed citizenship behavior to predict abusive supervision might have to do with whether or not supervisors perceived supervisor-directed citizenship behavior to be "part of the job" (i.e., not truly extrarole). If some supervisors consider supervisor-directed citizenship behavior to be within the realm of subordinates' regular job duties, it seems unlikely that it would foster the positive reciprocity norms typically generated by behaviors viewed as more benevolent. As a result, supervisors would not necessarily feel obligated to treat employees that engage in citizenship behavior especially well.

Of course, when one considers that the zero-order correlation between abusive supervision and supervisor-directed citizenship behavior is nonsignificant and negative, it is also conceivable that the positive, significant relationship found between abusive super-

Table 4  
Lagged Direct Effects of Supervisor-Directed Citizenship, Counterproductive Behavior, and Avoidance on Abusive Supervision

Independent variable	Abusive supervision ( $t + 1$ )			
	Estimate	<i>SD</i>	<i>p</i>	95% CI
Abusive supervision ( $t$ )	.53**	.05	.00	[.44, .62]
Citizenship ( $t$ )	.00	.01	.39	[-.02, .03]
Counterproductive behavior ( $t$ )	.12**	.04	.00	[.04, .20]
Avoidance ( $t$ )	.09**	.03	.01	[.02, .15]
$R^2$	.62			
$\Delta R^2$	.07			

Note. Estimate = unstandardized regression coefficient; *SD* = standard deviation of the posterior distribution; CI = credibility interval.  $R^2$  represents total Level 1 variance explained.  $\Delta R^2$  represents incremental Level 1 variance explained, when comparing the full model to one in which auto-regressive effects and effects of any non-hypothesized behaviors and emotions at time  $t$  on those on time  $t + 1$  are estimated.

\*\*  $p < .01$ , one-tailed.



vision and supervisor-directed citizenship behavior in the multi-level SEM model is a result of statistical artifact. For example, the positive coefficient might occur due to a suppressor effect in which a variable “increases the predictive validity of another variable (or set of variables) by its inclusion in a regression equation” (Conger, 1974, pp. 36–37). Clearly, future research is needed to better understand the circumstances under which abusive supervision and citizenship behavior are related to one another.

### Theoretical Implications

By shedding light on the dynamic nature of certain supervisor-subordinate social interactions, this study contributes to our understanding of how subordinates' behaviors can encourage and reinforce abusive supervision, and thus, how discrete incidents of mistreatment can develop into dysfunctional relationships over time. Of each of the potential behavioral reactions to abusive supervision examined, supervisor-directed counterproductive behavior and avoidance appeared to be the most destructive, in that they were the responses most likely to “backfire” and lead to more, not less, mistreatment. These reciprocal relationships suggest that, in some instances, abusive relationships could in part be the product of self-fulfilling prophecies (Merton, 1948)—beliefs that either directly or indirectly become true as a result of positive feedback between the belief and behavior. For example, a subordinate who experiences an act of mistreatment might come to believe that his or her supervisor is prone to treating employees poorly and thus, should be avoided. The supervisor, in turn, might misinterpret this reaction as indicative of a subordinate's lack of motivation—a characteristic perhaps perceived as deserving of further mistreatment. Subsequent abuse can reinforce the subordinate's initial belief, resulting in additional avoidant behavior that further serves to reinforce the supervisor's belief regarding the employee's motivation, and so on. Such interactions set the stage for a vicious cycle of dysfunctional behavior that can eventually transform a positive working relationship, punctuated by occasional unpleasant social interaction, into a destructive one.

These findings also have implications for the multimotive model of reactions to interpersonal threat (Smart Richman & Leary, 2009). That abusive supervision has main effects on supervisor-directed avoidance and supervisor-directed counterproductive behavior provides support for two of the model's three proposed responses to interpersonal threat. Failure to support the hypothesized relationship between abusive supervision and supervisor-directed citizenship behavior, however, stands in contrast with the prediction of the multimotive model that threats to relational value will result in reduced pro-social behavior toward the perpetrator (Smart Richman & Leary, 2009).

Additionally, according to the multimotive model (Smart Richman & Leary, 2009), specific responses to relational value threat may differ in the extent to which they are successful in reducing further threat. Yet, within the context of the multimotive model, there is currently little mention of which specific types of behaviors, in which types of relationships, are more or less effective at reducing future threat. Understanding how motives operate and are effective in reducing threats to relational value in the supervisor-subordinate relationship is important to furthering the multimotive model because, “rejections that occur in different kinds of relationships and on the basis of different criteria undoubtedly differ

from one another” (Smart Richman & Leary, 2009, p. 379). Our findings that counterproductive behavior and avoidance are unlikely to be effective at mitigating future instances of abuse in supervisor-subordinate relationships help to further inform this aspect of the model.

### Limitations and Future Research

The results of this study should be interpreted with their limitations in mind. One limitation is that the data collected to assess the relationships in this study were gathered from a single source, raising the possibility that common method variance might have inflated some of the effect sizes (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, for several of the analyses, the independent and dependent measures were separated in time. Temporal separation diminishes the transfer of contextually relevant retrieval cues from one time point to another, because previously recalled information is likely to leave individuals' short term memories (Podsakoff et al., 2003).

A more substantive limitation stemming from the fact that abusive supervision and subordinates' behaviors were assessed solely by subordinates is that the results of this study do little to show exactly what the driving forces (mediators) are behind supervisors' responses to subordinates' behaviors. Although theory provides convincing arguments for why supervisors respond to subordinates in certain ways (Amir, 1967; Smart Richman & Leary, 2009), future research is necessary to bolster these arguments with empirical support. Beyond changes in perceived relational value, which we have argued could mediate the subordinate behavior-abusive supervision relationships based on the tenets of the multimotive model (Smart Richman & Leary, 2009), another promising mediating mechanism worth investigating could be self-regulation impairment. According to self-regulation theory, challenging situations can drain the psychological resources necessary for sustaining normative behavior (Baumeister, 1998). To the extent that supervisors react to subordinates' counterproductive behavior and avoidance with energy-draining mental processes, such as rumination and sense-making, in efforts to unearth the reasons underlying these behaviors, their psychological resources could very well become depleted. Resource depletion resulting from these mental processes could, in turn, lead to impaired self-regulation and self-control, and thus, to a propensity toward counternormative behaviors such as abusive supervision (Thau & Mitchell, 2010). Indeed, recently published research has found a positive association between supervisors' resource depletion—operationalized as depressive symptoms, anxiety, and workplace alcohol consumption—and abusive supervision (Byrne et al., 2014).

Another limitation of our study is resultant from the fact that, consistent with a number of cognitive appraisal theories (e.g., Lazarus, 1991a, 1991b; Roseman, 1984; Smith & Kirby, 2000), the multimotive model proposes that cognitive appraisals, or construals, influence how individuals respond to stimuli. For instance, appraisals of the possibility of repairing the relationship with the supervisor may influence whether a mistreated subordinate engages in supervisor-directed avoidance versus counterproductive behavior (Smart Richman & Leary, 2009). Because we did not assess individuals' cognitive appraisals, we were unable to test directly how appraisals (e.g., unfairness, perceived cost of rejec-

tion) influenced participants' emotional and behavioral responses to abusive supervision.

We attempted to capture and infer motives by measuring how participants felt (via emotions) and behaved (via supervisor-directed behavior), both of which are central components of the multimotive model. Future research could explore other methods for assessing the multimotive model's three primary motives—regaining acceptance, defending and retaliating against pain, and avoiding risk of being hurt further. Research that directly assesses how individuals construe their experiences of abusive supervision may provide a more granular and cognitively based understanding of individuals' responses to rejection in the workplace.

In addition to closer examination of the role of cognition, there is also merit in further researching subordinate characteristics that may influence responses to abusive supervisors. According to the multimotive model (Smart Richman & Leary, 2009), dispositional factors can affect reactions to threat to relational value. However, this portion of the model currently remains underdeveloped, with little mention of which dispositional variables might influence individuals' responses to threat, and in what ways. But avoidance and counterproductive behavior are quite distinct. Rather than enacting each equally, employees may tend more toward one or the other depending on trait-based proclivities. The research on workplace mistreatment has, in fact, previously considered employee reactions to abuse through the lens of victim precipitation theory (Aquino & Lamertz, 2004; Olweus, 1978), which proposes that victims may contribute to their becoming targets of mistreatment (Amir, 1967; Olweus, 1978; Wolfgang, 1967). Our study suggests that victims may not only provoke the initial mistreatment, but may contribute to an ongoing pattern of mistreatment due to their reactions to abuse. Dispositional characteristics, such as personality traits, may indeed influence the propensity to engage in these reactions

Additionally, although there are a number of advantages to using longitudinal data to understand dynamic relational patterns, there are some potential drawbacks to measuring predictor and criterion variables separately. One such drawback involves the appropriateness of the lag time between measurements. If lag times are too long, they can result in increased sample attrition and may also mask relationships that truly exist if the causal effect fades over time (Podsakoff et al., 2003). Likewise, if lag times are too short, the process of interest will not have sufficient time to unfold. Thus, it is essential that the lag times incorporated into longitudinal study designs correspond to the process of interest as it naturally occurs. However, as noted by Selig and Preacher (2009), "often there is no theoretical or empirical basis for choosing lags" (p. 150). For this study, the choice of a lag time was especially challenging. On the one hand, emotions tend to be fleeting and short-lived, whereas relational patterns may take a comparatively longer time to establish. In light of trying to capture both emotional and relational aspects of abusive supervision, a one month lag seemed appropriate. Future research, however, could implement other lag times and more frequent measurement occasions to better understand how these factors influence findings.

A final limitation stems from the fact that, although our sample represented a diverse range of ages and occupations, White females constituted the majority of study respondents, which may limit the generalizability of our findings. The sample mirrors neither the gender nor the racial makeup of the general population

in the United States nor, likely, the average workplace. Because, power differences are often considered a fundamental aspect of abusive relationships, and because, at a societal level, gender and racial minorities are chronically less powerful (Zwicker & Delongis, 2010), it is conceivable that these and other minority groups may be more prone than nonminorities to receiving abuse (and perhaps also less likely to retaliate). Thus, it is important to exercise caution when judging to which contexts these findings might be transferable (Campbell, 1986) and to continue building knowledge about abusive supervision processes in a range of settings.

## Practical Implications

Unlike with sexual and physical harassment, in the United States, there is no legislation to guard employees from psychological harassment. However, there are hints that the legal landscape may soon change. Laws already protect workers in Australia, Canada, Sweden, and the United Kingdom, and at least 25 U.S. states have proposed legislation (Maurer, 2013). Thus, although it is important to better understand how abusive supervision and related phenomena (e.g., workplace bullying) emerge and develop over time for financial and psychological reasons, such an understanding also seems especially important for legal reasons. To this end, it is crucial to identify the mechanisms that perpetuate abusive supervision so that they can be targeted for training and intervention. Obtaining an understanding of dispositional predictors of abusive supervision would also be useful in enabling managers to identify applicants and employees most likely to become victims and perpetrators of mistreatment.

This study helps to accomplish some of these objectives. Knowledge that supervisors' and subordinates' destructive behaviors can mutually reinforce one another suggests that training programs and interventions targeting both parties—rather than only managers—would be useful in stopping or preventing abusive supervision. Such programs might provide organizational members with information about what abusive, avoidant, and counterproductive work behaviors entail as well as with information about how these behaviors can destructively reinforce one another. Training of this nature should enable supervisors and subordinates to better recognize when their own actions or those of their coworkers are fueling a vicious cycle of behavior—one that could ultimately mature into a full-fledged, psychologically abusive relationship.

## Conclusion

This research provided insight into how adversarial relationships among supervisors and subordinates develop. Findings showed that, at least in some instances, victims and perpetrators in abusive relationships engage in behaviors that are mutually reinforcing. These findings are important because they can be used to arm supervisors and subordinates with the knowledge to understand when and why destructive relational patterns are beginning to occur. Such knowledge could empower individuals to alter their behavior and prevent negative acts from cascading into the negative relationships we know to be so psychologically damaging (Smart Richman & Leary, 2009).

## References

- Amir, M. (1967). Victim precipitated forcible rape. *Journal of Criminal Law*, 58, 493–502.
- Aquino, K., & Bommer, W. (2003). Preferential mistreatment: How victim status moderates the relationship between organizational citizenship behavior and workplace victimization. *Organization Science*, 14, 374–385. <http://dx.doi.org/10.1287/orsc.14.4.374.17489>
- Aquino, K., & Lamertz, K. (2004). A relational model of workplace victimization: Social roles and patterns of victimization in dyadic relationships. *Journal of Applied Psychology*, 89, 1023–1034.
- Aquino, K., Tripp, T. M., & Bies, R. J. (2001). How employees respond to personal offense: The effects of blame attribution, victim status, and offender status on revenge and reconciliation in the workplace. *Journal of Applied Psychology*, 86, 52–59. <http://dx.doi.org/10.1037/0021-9010.86.1.52>
- Aryee, S., Chen, Z. X. G. C., & Debrah, Y. A. (2008). Abusive supervision and contextual performance: The mediating role of emotional exhaustion and the moderating role of work unit structure. *Management and Organization Review*, 4, 393–411. <http://dx.doi.org/10.1111/j.1740-8784.2008.00118.x>
- Aryee, S., Chen, Z. X., Sun, L. Y., & Debrah, Y. A. (2007). Antecedents and outcomes of abusive supervision: Test of a trickle-down model. *Journal of Applied Psychology*, 92, 191–201. <http://dx.doi.org/10.1037/0021-9010.92.1.191>
- Baumeister, R. F. (1998). The self. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed., Vol. 1, pp. 680–740). New York, NY: McGraw-Hill.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, 5, 323–370.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497–529. <http://dx.doi.org/10.1037/0033-2909.117.3.497>
- Bolino, M. C. (1999). Citizenship and impression management: Good soldiers or good actors? *Academy of Management Review*, 24, 82–98. <http://dx.doi.org/10.5465/AMR.1999.1580442>
- Bossuyt, E., Moors, A., & De Houwer, J. (2014). On angry approach and fearful avoidance: The goal dependent nature of emotional approach and avoidance tendencies. *Journal of Experimental Social Psychology*, 50, 118–124. <http://dx.doi.org/10.1016/j.jesp.2013.09.009>
- Bradfield, M., & Aquino, K. (1999). The effects of blame attribution and offender likableness on forgiveness and revenge in the workplace. *Journal of Management*, 25, 607–631. <http://dx.doi.org/10.1177/014920639902500501>
- Brief, A. P., & Weiss, H. M. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology*, 53, 279–307. <http://dx.doi.org/10.1146/annurev.psych.53.100901.135156>
- Byrne, A., Dionisi, A. M., Barling, J., Akers, A., Robertson, J., Lys, R., . . . Dupré, K. (2014). The depleted leader: The influence of leaders' diminished psychological resources on leadership behaviors. *The Leadership Quarterly*, 25, 344–357. <http://dx.doi.org/10.1016/j.leaqua.2013.09.003>
- Campbell, D. T. (1986). Relabeling internal and external validity for applied social scientists. *New Directions for Program Evaluation*, 3, 67–77. <http://dx.doi.org/10.1002/ev.1434>
- Carver, C. S., & Harmon-Jones, E. (2009). Anger is an approach-related affect: Evidence and implications. *Psychological Bulletin*, 135, 183–204. <http://dx.doi.org/10.1037/a0013965>
- Chow, R. M., Tiedens, L. Z., & Govan, C. L. (2008). Excluded emotions: The role of anger in antisocial responses to ostracism. *Journal of Experimental Social Psychology*, 44, 896–903. <http://dx.doi.org/10.1016/j.jesp.2007.09.004>
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Conger, A. J. (1974). Revised definition for suppressor variables: A guide to their identification and interpretation. *Educational and Psychological Measurement*, 34, 35–46. <http://dx.doi.org/10.1177/001316447403400105>
- Crossley, C. D. (2009). Emotional and behavioral reactions to social undermining: A closer look at perceived offender motives. *Organizational Behavior and Human Decision Processes*, 108, 14–24. <http://dx.doi.org/10.1016/j.obhdp.2008.06.001>
- Dimotakis, N., Ilies, R., & Judge, T. A. (2013). Experience sampling methodology. In J. M. Cortina & R. S. Landis (Eds.), *Modern research methods for the study of behavior in organizations* (pp. 319–348). New York, NY: Routledge.
- Fast, N. J., & Chen, S. (2009). When the boss feels inadequate: Power, incompetence, and aggression. *Psychological Science*, 20, 1406–1413. <http://dx.doi.org/10.1111/j.1467-9280.2009.02452.x>
- Folger, R., & Skarlicki, D. (2005). Beyond counterproductive work behavior: Moral emotions and deontic retaliation versus reconciliation. In S. Fox & P. Spector (Eds.), *Counterproductive work behavior: Investigations of actors and targets* (pp. 83–105). Washington, DC: American Psychological Association. <http://dx.doi.org/10.1037/10893-004>
- Furr, R. M., & Funder, D. C. (1998). A multimodal analysis of personal negativity. *Journal of Personality and Social Psychology*, 74, 1580–1591.
- Gerber, J., & Wheeler, L. (2009). On being rejected a meta-analysis of experimental research on rejection. *Perspectives on Psychological Science*, 4, 468–488. <http://dx.doi.org/10.1111/j.1745-6924.2009.01158.x>
- Goetz, J. L., Keltner, D., & Simon-Thomas, E. (2010). Compassion: An evolutionary analysis and empirical review. *Psychological Bulletin*, 136, 351–374. <http://dx.doi.org/10.1037/a0018807>
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25, 161–178. <http://dx.doi.org/10.2307/2092623>
- Gray, J. A. (1987). *The psychology of fear and stress*. New York, NY: Cambridge University Press.
- Hershcovis, S. M., & Reich, T. C. (2013). Integrating workplace aggression research: Relational, contextual, and method considerations. *Journal of Organizational Behavior*, 34, 26–42. <http://dx.doi.org/10.1002/job.1886>
- Hershcovis, M. S., & Barling, J. (2010). Towards a multi-foci approach to workplace aggression: A meta-analytic review of outcomes from different perpetrators. *Journal of Organizational Behavior*, 31, 24–44. <http://dx.doi.org/10.1002/job.621>
- Hershcovis, S. M., & Rafferty, A. (2012). Predicting abusive supervision. In J. Houdmont, S. Leka, & R. Sinclair (Eds.), *Contemporary occupational health psychology: Global perspectives on research and practice* (Vol. 2, pp. 92–108). Chichester, England: Wiley-Blackwell. <http://dx.doi.org/10.1002/9781119942849.ch6>
- Hoobler, J. M., & Brass, D. J. (2006). Abusive supervision and family undermining as displaced aggression. *Journal of Applied Psychology*, 91, 1125–1133. <http://dx.doi.org/10.1037/0021-9010.91.5.1125>
- Horberg, E. J., Oveis, C., & Keltner, D. (2011). Emotions as moral amplifiers: An appraisal tendency approach to the influences of distinct emotions upon moral judgment. *Emotion Review*, 3, 237–244. <http://dx.doi.org/10.1177/1754073911402384>
- Inness, M., Leblanc, M. M., & Barling, J. (2008). Psychosocial predictors of supervisor-, peer-, subordinate-, and service-provider-targeted aggression. *Journal of Applied Psychology*, 93, 1401–1411. <http://dx.doi.org/10.1037/a0012810>
- Judge, T. A., Scott, B. A., & Ilies, R. (2006). Hostility, job attitudes, and workplace deviance: Test of a multilevel model. *Journal of Applied Psychology*, 91, 126–138.
- Kruschke, J. K., Aguinis, H., & Joo, H. (2012). The time has come: Bayesian methods for data analysis in the organizational sciences. *Or-*



- ganizational Research Methods, 15, 722–752. <http://dx.doi.org/10.1177/1094428112457829>
- Lazarus, R. S. (1991a). Cognition and motivation in emotion. *American Psychologist*, 46, 352–367. <http://dx.doi.org/10.1037/0003-066X.46.4.352>
- Lazarus, R. S. (1991b). *Emotion and adaptation*. New York, NY: Oxford University Press.
- Lee, S. J., & Tedeschi, J. T. (1996). Effects of norms and norm-violations on inhibition and instigation of aggression. *Aggressive Behavior*, 22, 17–25. [http://dx.doi.org/10.1002/\(SICI\)1098-2337\(1996\)22:1<17::AID-AB2>3.0.CO;2-R](http://dx.doi.org/10.1002/(SICI)1098-2337(1996)22:1<17::AID-AB2>3.0.CO;2-R)
- Lian, H., Ferris, D. L., Morrison, R., & Brown, D. J. (2014). Blame it on the supervisor or the subordinate? Reciprocal relations between abusive supervision and organizational deviance. *Journal of Applied Psychology*, 99, 651–664. <http://dx.doi.org/10.1037/a0035498>
- Malatesta, R. M. (1995). *Understanding the dynamics of organizational and supervisory commitment using a social exchange framework*. Unpublished doctoral dissertation, Wayne State University, Department of Psychology.
- Martinko, M. J., Harvey, P., Brees, J. R., & Mackey, J. (2013). A review of abusive supervision research. *Journal of Organizational Behavior*, 34, 120–137. <http://dx.doi.org/10.1002/job.1888>
- Maurer, R. (2013). Workplace-bullying laws on the horizon? *Society for Human Resource Management*. Retrieved from <http://www.shrm.org/hrdisciplines/safetysecurity/articles/pages/workplace-bullying-laws.aspx>
- Mawritz, M. B., Dust, S. B., & Resick, C. J. (2014). Hostile climate, abusive supervision, and employee coping: Does conscientiousness matter? *Journal of Applied Psychology*, 99, 737–747. <http://dx.doi.org/10.1037/a0035863>
- Merton, R. K. (1948). The self-fulfilling prophecy. *The Antioch Review*, 8, 193–210. <http://dx.doi.org/10.2307/4609267>
- Misslin, R. (2003). The defense system of fear: Behavior and neurocircuitry. *Clinical Neurophysiology*, 33, 55–66. [http://dx.doi.org/10.1016/S0987-7053\(03\)00009-1](http://dx.doi.org/10.1016/S0987-7053(03)00009-1)
- Mitchell, M. S., & Ambrose, M. L. (2007). Abusive supervision and workplace deviance and the moderating effects of negative reciprocity beliefs. *Journal of Applied Psychology*, 92, 1159–1168. <http://dx.doi.org/10.1037/0021-9010.92.4.1159>
- Moss, S., Valenzi, E., & Taggart, W. (2003). Are you hiding from your boss? The development of a taxonomy and instrument to assess the feedback management behaviors of good and bad performers. *Journal of Management*, 29, 487–510. [http://dx.doi.org/10.1016/S0149-2063\(03\)00022-9](http://dx.doi.org/10.1016/S0149-2063(03)00022-9)
- Muthén, B. (2010). *Bayesian analysis in Mplus: A brief introduction*. Tech. Rep. No. in preparation. Los Angeles: Muthén & Muthén. Retrieved from <http://www.statmodel.com>
- Muthén, L. K., & Muthén, B. O. (2012). *Mplus User's Guide* (7th ed.). Los Angeles: Authors.
- Ohbuchi, K. I., Tamura, T., Quigley, B. M., Tedeschi, J. T., Madi, N., Bond, M. H., & Mummendey, A. (2004). Anger, blame, and dimensions of perceived norm violations: Culture, gender, and relationships. *Journal of Applied Social Psychology*, 34, 1587–1603. <http://dx.doi.org/10.1111/j.1559-1816.2004.tb02788.x>
- Olweus, D. (1978). *Aggression in schools: Bullies and whipping boys*. Washington, DC: Hemisphere.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879–903. <http://dx.doi.org/10.1037/0021-9010.88.5.879>
- Porath, C. L., & Pearson, C. M. (2010). The cost of bad behavior. *Organizational Dynamics*, 39, 64–71. <http://dx.doi.org/10.1016/j.orgdyn.2009.10.006>
- Rodell, J. B., & Judge, T. A. (2009). Can “good” stressors spark “bad” behaviors? The mediating role of emotions in links of challenge and hindrance stressors with citizenship and counterproductive behaviors. *Journal of Applied Psychology*, 94, 1438–1451. <http://dx.doi.org/10.1037/a0016752>
- Roseman, I. J. (1984). Cognitive determinants of emotion: A structural theory. In P. Shaver (Ed.), *Review of personality & social psychology: Vol. 5. Emotions, relationships, and health* (pp. 11–36). Beverly Hills, CA: Sage.
- Rudolph, U., Roesch, S. C., Greitemeyer, T., & Weiner, B. (2004). A meta-analytic review of help giving and aggression from an attributional perspective: Contributions to a general theory of motivation. *Cognition and Emotion*, 18, 815–848. <http://dx.doi.org/10.1080/02699930341000248>
- Selig, J. P., & Preacher, K. J. (2009). Mediation models for longitudinal data in developmental research. *Research in Human Development*, 6, 144–164. <http://dx.doi.org/10.1080/15427600902911247>
- Smart Richman, L., & Leary, M. R. (2009). Reactions to discrimination, stigmatization, ostracism, and other forms of interpersonal rejection: A multimotive model. *Psychological Review*, 116, 365–383. <http://dx.doi.org/10.1037/a0015250>
- Smith, C. A., & Kirby, L. (2000). Consequences require antecedents: Toward a process model of emotion elicitation. In J. P. Forgas (Ed.), *Feeling and thinking: The role of affect in social cognition* (pp. 83–106). New York, NY: Cambridge University Press.
- Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology*, 68, 653–663. <http://dx.doi.org/10.1037/0021-9010.68.4.653>
- Spector, P. E., & Fox, S. (2005). The stressor–emotion model of counterproductive behavior. In S. Fox & P. E. Spector (Eds.), *Counterproductive work behavior: Investigations of actors and targets* (pp. 13–40). Washington, DC: American Psychological Association. <http://dx.doi.org/10.1037/10893-007>
- Sy, T. (2010). What do you think of followers? Examining the content, structure, and consequences of implicit followership theories. *Organizational Behavior and Human Decision Processes*, 113, 73–84. <http://dx.doi.org/10.1016/j.obhdp.2010.06.001>
- Tepper, B. J. (2000). Consequences of abusive supervision. *Academy of Management Journal*, 43, 178–190. <http://dx.doi.org/10.2307/1556375>
- Tepper, B. J. (2007). Abusive supervision in work organizations: Review, synthesis, and research agenda. *Journal of Management*, 33, 261–289. <http://dx.doi.org/10.1177/0149206307300812>
- Tepper, B. J., Carr, J., Breaux, D. M., Geider, S., Hu, C., & Hua, W. (2009). Abusive supervision, intentions to quit, and employees' workplace deviance: A power/dependence analysis. *Organizational Behavior and Human Decision Processes*, 109, 156–167. <http://dx.doi.org/10.1016/j.obhdp.2009.03.004>
- Tepper, B. J., Duffy, M. K., Henle, C. A., & Lambert, L. S. (2006). Procedural justice, victim precipitation, and abusive supervision. *Personnel Psychology*, 59, 101–123. <http://dx.doi.org/10.1111/j.1744-6570.2006.00725.x>
- Tepper, B. J., Duffy, M. K., & Shaw, J. D. (2001). Personality moderators of the relationship between abusive supervision and subordinates' resistance. *Journal of Applied Psychology*, 86, 974–983. <http://dx.doi.org/10.1037/0021-9010.86.5.974>
- Tepper, B. J., Moss, S. E., & Duffy, M. K. (2011). Predictors of abusive supervision: Supervisor perceptions of deep-level dissimilarity, relationship conflict, and subordinate performance. *Academy of Management Journal*, 54, 279–294. <http://dx.doi.org/10.5465/AMJ.2011.60263085>
- Tepper, B. J., Moss, S. E., Lockhart, D. E., & Carr, J. C. (2007). Abusive supervision, upward maintenance communication, and subordinates' psychological distress. *Academy of Management Journal*, 50, 1169–1180. <http://dx.doi.org/10.2307/20159918>



- Thau, S., & Mitchell, M. S. (2010). Self-gain or self-regulation impairment? Tests of competing explanations of the supervisor abuse and employee deviance relationship through perceptions of distributive justice. *Journal of Applied Psychology, 95*, 1009–1031. <http://dx.doi.org/10.1037/a0020540>
- Tofghi, D., West, S. G., & MacKinnon, D. P. (2013). Multilevel mediation analysis: The effects of omitted variables in the 1–1–1 model. *The British Journal of Mathematical and Statistical Psychology, 66*, 290–307. <http://dx.doi.org/10.1111/j.2044-8317.2012.02051.x>
- Twenge, J. M., Baumeister, R. F., DeWall, C. N., Ciarocco, N. J., & Bartels, J. M. (2007). Social exclusion decreases prosocial behavior. *Journal of Personality and Social Psychology, 92*, 56–66. <http://dx.doi.org/10.1037/0022-3514.92.1.56>
- Wade, S. H. (1989). *The development of a scale to measure forgiveness*. Unpublished doctoral dissertation, Fuller Theological Seminary, School of Psychology.
- Watson, D., & Clark, L. A. (1994). *The PANAS-X: Manual for the positive and negative affect schedule—Expanded form*. Unpublished manuscript, University of Iowa, Department of Psychology.
- Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 19, pp. 467–474). Greenwich, CT: JAI Press.
- West, S. G., & Hepworth, J. T. (1991). Statistical issues in the study of temporal data: Daily experiences. *Journal of Personality, 59*, 609–662. <http://dx.doi.org/10.1111/j.1467-6494.1991.tb00261.x>
- Wolfgang, M. E. (1967). Victim-precipitated criminal homicide. In M. E. Wolfgang (Ed.), *Studies in homicide* (pp. 72–87). New York, NY: Harper & Row.
- Yang, J., & Diefendorff, J. M. (2009). The relations of daily counterproductive workplace behavior with emotions, situational antecedents, and personality moderators: A diary study in Hong Kong. *Personnel Psychology, 62*, 259–295. <http://dx.doi.org/10.1111/j.1744-6570.2009.01138.x>
- Yuan, Y., & MacKinnon, D. P. (2009). Bayesian mediation analysis. *Psychological Methods, 14*, 301–322. <http://dx.doi.org/10.1037/a0016972>
- Zellars, K. L., Tepper, B. J., & Duffy, M. K. (2002). Abusive supervision and subordinates' organizational citizenship behavior. *Journal of Applied Psychology, 87*, 1068–1076. <http://dx.doi.org/10.1037/0021-9010.87.6.1068>
- Zhao, H., Peng, Z., Han, Y., Sheard, G., & Hudson, A. (2013). Psychological mechanism linking abusive supervision and compulsory citizenship behavior: A moderated mediation study. *The Journal of Psychology, 147*, 177–195. <http://dx.doi.org/10.1080/00223980.2012.680522>
- Zwicker, A., & DeLongis, A. (2010). Handbook of gender research in psychology. In J. C. Chrisler & D. R. McCreary (Eds.), *Handbook of gender research in psychology* (Vol. 2, pp. 495–515). New York, NY: Springer. [http://dx.doi.org/10.1007/978-1-4419-1467-5\\_21](http://dx.doi.org/10.1007/978-1-4419-1467-5_21)
- Zyphur, M. J., & Oswald, F. L. (2015). Bayesian estimation and inference: A user's guide. *Journal of Management, 41*, 390–420. <http://dx.doi.org/10.1177/0149206313501200>

Received April 19, 2014

Revision received April 7, 2015

Accepted April 15, 2015 ■